

1 CLAIMS

2 What is claimed is:

3 1. A payment processing system comprising:

4 a plurality of data communications devices adapted to transmit a plurality of
5 payment requests in connection with purchases, the data communications devices
6 configured to transmit the payment requests via respective communication channels,
7 wherein each payment request includes a merchant identification code and a set of
8 customer financial account data; and
9 a payment server arrangement adapted to receive the payment requests from the
10 data communications devices at the respective channels via a plurality of adapter modules
11 corresponding to each of the communication channels, each of the adapter modules having
12 a payment processing application configured to identify a financial institution
13 identification code associated with the merchant identification code and interface with a
14 data processing system of the financial institution consistent with a communications
15 protocol associated with the identified financial institution.

1 2. The payment processing system of claim 1, wherein at least one of the adapter
2 modules is configured to communicate data with a mobile communications device
3 consistent with an SSL/SET communications protocol thereby ensuring a high level of
4 security in communicating the customer financial account data.

1 3. The payment processing system of claim 3, further comprising a customer
2 financial server responsive to the mobile communications device and communicatively
3 coupled to the payment server, the customer-controlled server configured to transmit the
4 set of customer financial account data at the high level of security sought by the financial
5 institution.

1 4. The payment processing system of claim 1, wherein at least one of the adapter
2 modules is configured to communicate data with an POS terminal consistent with a POS
3 communications protocol thereby ensuring a high level of securing in communicating the
4 customer financial account data.

1 5. The payment processing system of claim 1, wherein at least one of the adapter
2 modules is configured to communicate data with a set top box arrangement consistent with
3 a cable network communications protocol thereby ensuring a high level of securing in
4 communicating the customer financial account data.

1 6. The payment processing system of claim 1, wherein at least one of the adapter
2 modules is configured to communicate data with a set top box arrangement consistent with
3 a satellite network communications protocol thereby ensuring a high level of securing in
4 communicating the customer financial account data.

1 7. The payment processing system of claim 1, wherein the payment server
2 arrangement further comprises a merchant/bank identification code database that
3 facilitates identifying the financial institution associated with the merchant identification
4 code.

1 8. The payment processing system of claim 1, further comprising a merchant
2 transactions database that includes historical information of payments processed by the
3 payment server arrangement, wherein the historical information is configurable for
4 demographic research.

1 9. The payment processing system of claim 2, wherein the at least one of the adapter
2 modules configured to communicate with a mobile communications device is also
3 configured to communicate data with a vending machine and a kiosk, thereby reducing the
4 number of adapter modules dedicated to the data communications devices.

1 10. A payment request processing arrangement configured and arranged for
2 communication with a plurality of data communication devices via respective
3 communications channels and communication with a plurality of data processing systems
4 located at a plurality of financial institutions, the arrangement comprising:

5 a payment server configured and arranged to be responsive to the plurality of data
6 communications devices, the payment server configured to receive a payment processing
7 request via a first channel at a first adapter module corresponding to a first data
8 communications device, wherein each payment request includes a merchant identification

code and a set of customer financial account data, the first adapter module having a first payment processing application configured to identify a financial institution identification code associated with the merchant identification code and interface with a data processing system of the financial institution consistent with a communications protocol associated with the identified financial institution.

11. The arrangement of claim 10, wherein the payment server arrangement further comprises a merchant/bank identification code database that facilitates identifying the financial institution associated with the merchant identification code.

12. The arrangement of claim 10, further comprising a merchant transactions database that includes historical information of payments processed by the payment server arrangement, wherein the historical information is configurable for demographic research.

13. The arrangement of claim 10, wherein at least one of the adapter modules is configured to communicate data with a set top box arrangement consistent with a cable network communications protocol thereby ensuring a high level of securing in communicating the customer financial account data.

14. A system for processing payment requests from a plurality of data communications devices, each payment request including a merchant identification code and a set of customer financial data, the system comprising:

a plurality of adapter modules, each adapter module configured to interface with one or more of the communications devices via a selected communications channel;

means for receiving payment requests from the data communications devices at the adapter modules via the communications channels;

means for identifying the financial institutions associated with the merchant identification codes, each financial institution having an associated data processing system for processing payment requests; and

means for interfacing with the data processing systems of the financial institutions consistent with payment protocols associated with the financial institutions.

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1 15. A computer-implemented method for processing payment requests from a plurality
2 of data communications devices, each payment request including a merchant identification
3 code and a set of customer financial data, the method comprising:

4 providing a plurality of adapter modules, each adapter module configured to
5 interface with one or more of the communications devices via a selected communications
6 channel;

7 receiving payment requests from the data communications devices at the adapter
8 modules via the communications channels;

9 identifying the financial institutions associated with the merchant identification
10 codes, each financial institution having an associated data processing system for
11 processing payment requests; and

12 interfacing with the data processing systems of the financial institutions consistent
13 with payment protocols associated with the identified financial institutions.

1 16. The method of claim 15, after the interfacing step, further comprising:
2 processing payment at the identified financial institutions; and
3 storing the processed payment as data in a merchant transactions database.

1 17. The method of claim 15, wherein the step of identifying the financial institutions
2 includes providing a merchant/bank identification database that includes historical
3 information of processed payments, wherein the historical information is configurable for
4 demographic research.